

AMENDMENTS TO THE CLAIMS

Please amend Claim 55 as noted below and add new Claims 88 and 89 for consideration.

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claims 1 – 12 (Withdrawn)

Claims 13 – 38 (Cancelled)

Claims 39 – 46 (Withdrawn)

Claims 47 – 54 (Cancelled)

Claim 55 (Currently Amended) A prepreg of a honeycomb sandwich structure precursor including a honeycomb core, a stiffness-treated prepreg ply and a second prepreg ply, and where the stiffness-treated prepreg ply and the second prepreg ply are disposed adjacent one another, said stiffness-treated prepreg ply comprising:

a stiffness-treated fabric including a plurality of fibers and a polymerized polymeric stiffening material disposed on at least some of the fibers, where the stiffness-treated fabric exhibits an ASTM stiffness value not less than 7% greater than the ASTM stiffness value of an untreated fabric; and

a resin system,

the stiffness-treated prepreg ply, when disposed on the second prepreg ply comprising a resin system and a fabric selected from the group consisting of the stiffness-treated fabric and untreated fabrics, exhibiting a frictional resistance between the stiffness-treated prepreg ply and the second prepreg ply sufficiently greater than the frictional resistance between two untreated prepreg plies disposed on one another, where each of the two untreated prepreg plies comprises the resin system and an untreated fabric, so as to enhance resistance to core crush when autoclave pressures are raised to decrease void content of a honeycomb core during

fabrication of a honeycomb core structure from the honeycomb core structure precursor.

Claim 56 (Cancelled)

Claim 57 (Previously Amended) The prepreg according to claim 55, wherein the frictional resistance between the stiffness-treated prepreg ply and the second prepreg ply is between 50 pounds and 175 pounds as measured by the Boeing-Willhelm method.

Claim 58 (Previously Amended) The prepreg according to claim 55, wherein the frictional resistance between the stiffness-treated prepreg ply and the second prepreg ply is between 75 pounds and 175 pounds as measured by the Boeing-Willhelm method.

Claim 59 (Previously Amended) The prepreg according to claim 55, wherein the frictional resistance between the stiffness-treated prepreg ply and the second prepreg ply is between 100 pounds and 150 pounds as measured by the Boeing-Willhelm method.

Claims 60 – 76 (Withdrawn)

Claims 77 – 86 (Cancelled)

Claim 87 (Withdrawn)

Claim 88. (New) A prepreg of a honeycomb sandwich structure precursor comprising:

a honeycomb core;

a stiffness-treated prepreg ply comprising:

(a) a stiffness-treated fabric, comprised of a plurality of fibers and a polymerized polymeric stiffening material disposed on at least some of the fibers, where the stiffness-treated fabric exhibits an ASTM stiffness value not

less than 7% greater than the ASTM stiffness value of an untreated fabric;
and

(b) a resin system; and

a second prepreg ply selected from the group consisting of a stiffness-treated prepreg ply and an untreated prepreg ply, where an untreated prepreg ply comprises a resin system and an untreated fabric, interposed between the honeycomb core and the stiffness-treated prepreg ply;

where the stiffness-treated prepreg ply exhibits a frictional resistance to the second prepreg ply greater than the frictional resistance between two untreated prepreg plies disposed against one another, so as to enhance resistance to core crush when autoclave pressures are raised to decrease void content of a honeycomb core during fabrication of a honeycomb core structure from the honeycomb core structure precursor.

Claim 89. (New) A prepreg of a honeycomb sandwich structure precursor comprising:

a honeycomb core;

a plurality of prepreg plies,

wherein at least one of the prepreg plies is a stiffness-treated prepreg ply not in contact with the honeycomb core, comprising:

(a) a stiffness-treated fabric, comprised of a plurality of fibers and a polymerized polymeric stiffening material disposed on at least some of the fibers where the stiffness-treated fabric exhibits an ASTM stiffness value not less than 7% greater than the ASTM stiffness value of an untreated fabric;
and

(b) a resin system; and

wherein the at least one stiffness-treated prepreg ply exhibits a frictional resistance to an adjacent prepreg ply greater than the frictional resistance between two untreated prepreg plies disposed against one another, so as to enhance resistance to core crush when autoclave pressures are raised to decrease void content of a honeycomb core during fabrication of a honeycomb core structure from the honeycomb core structure precursor.